Kentucky Department of Education
Science Adoption 2008-2014

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Grade Eight Kit Bundle				
Type - P2	Author - Lowery & Delta Ed			
Copyright - 2005	Edition - N/A		Readability - N/A	
Course - SCIENCE			Grade(s) - 8	
Teacher Edition ISBN if applicable 9781583564318, 9781592428861		9781583564431, 9781583564073, 9781583564370,		

Overall Recommendation: ☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

These program modules provide students with an inquiry and activity based learning that is appropriate for eighth grade students. It reinforces the use of charts and graphs and requires students to analyze data, draw conclusions, and form syntheses throughout each of the modules. The assessment opportunities are appropriate for this style of learning, but do not lend themselves to a high depth of knowledge levels (DOK). In addition, the assessment is not KCCT like. Effective use of the modules will require teacher training, so that the teacher can build a foundation or platform from with he/she is going to teach the students. The program modules do not include enough factual information, as though it is an exploratory type learning tool. The literacy program within the content area is partially implemented since the modules provide teachers with great reading resources, but do not provide teachers with instructions on how to use them. Teachers will need to develop their own scheme of questions when using most of the reading resources because essential questions and critical thinking questions were not provided for some of these reading resources.

CRITERIA
This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

☐ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

a)	Structure and Transformation of Matter	☐ Strong	☒ Moderate	☐ Little	☐ N/A
b)	Motion and Forces	☒ Strong	☐ Moderate	☐ Little	☐ N/A
c)	The Earth and the Universe	☐ Strong	☐ Moderate	☐ Little	☒ N/A
d)	Unity and Diversity	☐ Strong	☒ Moderate	☐ Little	☐ N/A

e) Biological Change ☐ Strong ☐ Moderate ☐ Little ☒ N/A

f) Energy Transformation ☒ Strong ☐ Moderate ☐ Little ☐ N/A

g) Interdependence ☒ Strong ☐ Moderate ☐ Little ☐ N/A

2) Addresses content-specific enduring understandings from the related Program of Studies standards. ☐ Strong ☒ Moderate ☐ Little ☐ N/A

3) Addresses content-specific skills and concepts from the related Program of Studies standards. ☐ Strong ☒ Moderate ☐ Little ☐ N/A

4) Content addressed is current, relevant and non-trivial ☐ Strong ☒ Moderate ☐ Little ☐ N/A

5) Provides opportunities for critical thinking/reasoning ☒ Strong ☐ Moderate ☐ Little ☐ N/A

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

In reference to the Energy Transformation, the content is very strong in all areas, but it is spread throughout each of the different kits, which may require a school to purchase the kits for all grade levels. In reference to Motion and Forces, this kit may make it more difficult to follow district pacing guides and preparing students for district level learning checks. Each of the kits is designed for a classroom of 32 students, so you will need to purchase more consumables to meet the needs of the students. A limited explanation of the content is provided to the teachers in several of the kits, which may require teachers to seek information on their own with regards to student or teacher misconceptions. The Human and Brain Module do not meet any of the standards identified by the Program of Studies. The modules do not provide neither teachers nor students with foundational information and will require teachers to develop mini-units that provide students with concrete or factual information for a greater level of understanding.

B. Functionality & Suitability	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Suitability ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) Connections to Literacy ☐ Strong ☒ Moderate ☐ Little
Note: may apply to either student or teacher editions

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) Connections to Technology ☒ Strong ☐ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners ☐ Strong ☒ Moderate ☐ Little

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
  Note: may apply only to teacher edition

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The resource does a great job of having students activate their knowledge of the scientific process, which includes analyzing the data and drawing conclusions. Although it is free from factual errors, the teacher may find him/herself supplementing each module with basic facts about the content. The reading activities are written in a non-traditional format--they appear to be more like newsletter artciles and the titles are fascinating. The focus on literacy in the content areas does not seem to be a priority, with the lack of pre, during, and post reading activities. These module promote a mostly inquiry and activity based type of instruction, which limits the impact of instruction on reading in the content area. With respect to diverse learners, this program allows for students to develop personal experiences with science by way of performing the activities and attempts to include some titles that are written in spansih, but does not make any instructional changes to the text or lessons that impact the quality of instruction for diverse learners.

C. Supports Inquiry and Skill Development	☐ **Strong Evidence**

	☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Promotes Inquiry, research and Application of Learning ☒ Strong ☐ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development ☒ Strong ☐ Moderate ☐ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

These modules really guide students through the scientific method and the inquiry baseed learning process. It provides them with the resources that may eventually lead to critical thinking and reading, but the teacher will be responsible for designing critical thinking questions, as well as the constructing essential questions that can be used to guide students through the learning process. The project is perfect for providing students with opportunities to read a variety of charts and graphs, analyzing the data, drawing conclusions, synthesizing information, and even designing their own experiments. Once again, these programs do not help teachers deepen the level of learning or understanding.

D. Supports Best Practices of Teaching and Learning	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

1) Engages Students ☐ Strong ☒ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students

- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated
  Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction ☐ Strong ☒ Moderate ☐ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

This module does an excellent job at engaging and motivating students. It provides students with the opportunity to experience concepts in a real-life meaningful way. It uses a limited number of learning strategies to reinforce learning for all students. There are some assessments at the end of each module, which are accompanied by scoring guides. These assesments are not KCCT like.

E. Has an Organization/ Format that Supports Learning and Teaching	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Organizational Quality ☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) ☐ Strong ☒ Moderate ☐ Little

- Items identified as essential components support the learning goals and concept coverage of the

basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The resources that accompanies the program modules do not aid pupuils and teachers in using the book effectively. Teachers will have to construct a foundation for the program, while students will need to come to class with science pre-requisites or other foundational science experiences that will help them be successful.

F. Has available Ancillary/ Gratis Materials *Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F*	☐ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

It was unclear from the bid form and the manner of packaging what was intended as ancillary. Nothing was reported on the free with purchase form. Therefore, no comments will be made in reference to ancillary/gratis materials.